

Section 5
Membranes & Transport
Review

BIOLOGY 6.0

Homeostasis

1. Organisms must maintain ___?___ or "steady state" in order to survive.

environment

2. Organisms must constantly take in substances from their ___?___ in order to live.

waste

They must also get rid of ___?___.

Diffusion

3. Molecules are constantly moving (Brownian movement). They will spread out, moving from a greater concentration to a lesser concentration. This is called ___?___. Finally, an ___?___ will be established.

Equilibrium

Permeable

4. If a substance passes through a membrane, it is said to be ___?___ to this substance.

Semi

The plasma membrane is ___?___ permeable.

Temperature

5. Concentration, ___?___ and ___?___ all affect the diffusion rate.

Size

Osmosis

6. ___?___ is the diffusion of water through a selectively permeable membrane.

into

hypotonic

7. If the solution outside the cell has a lower concentration of solutes and a higher concentration of water molecules than the cell concentration, there will be a net movement of water ___?___ the cell. The solution outside the cell is said to be ___?___

turgor

8. As water diffuses into the cell by ___?___, ___?___ pressure builds up within it. This

rigid

causes plant cells to become ___?___. At some point the inside pressure inside will

equilibrium

equal the pressure of water molecules outside the cell. A state of ___?___ will exist.

wilt

9. When turgor pressure is low, plant cells will ___?___.

hypertonic

out

10. If the solution outside the cell has a higher concentration of solutes and a lower concentration of water than the cell content, the outside solution is said to be ___?___, and the water diffuses ___?___ of the cell.

plasmolysis

11. When a cell shrinks, the condition is called ___?___.

Isotonic

12. When the solution outside a cell has the same concentration of solute and the same concentration of water molecules as the cell content, the solution is ___?___.

Cytolysis

13. Animal cells can take up too much water and can burst. This is called ___?___.

central

14. Protozoans have ___?___ vacuoles for regulating water balance.

passive

15. Diffusion or osmosis is called ___?___ transport because no ___?___ is needed.

energy

diffusion 16. Water and gases pass through cell membranes by the process of ? .

lipids 17. Molecules that are soluble in ? can also pass across the membrane.

carrier
proteins 18. Glucose is too large to diffuse quickly across a membrane. The passage is
Done quicker by use of a ? molecule. They are ? that are embedded in
the membrane and no energy is required..

carrier proteins 19. Some mineral salts and ions are moved from a lesser to a greater concentration.
is required ? ? molecules may also be involved. Energy ? ? ? . This is
active called ? transport.

phagocytosis 20. Large solid molecules that cannot pass through the membrane must enter by
endocytosis ? , a type of ? .

pinocytosis 21. Liquid macromolecules are taken in by a process called ? .

exocytosis 22. ? is when large molecules are moved to the outside of the cell.